What is claimed is:

1. A composition for the administration of a pharmacologically active compound to a mammal, comprising:

a salt of the pharmacologically active compound with a lipophilic counterion; and

a pharmaceutically acceptable, water immiscible solvent;

combined together to form a composition that releases the active compound over time when administered to the mammal.

2. The composition of claim 1 wherein the composition is an injectable composition.

3. The composition of claim 2 wherein the pharmacologically active compound is an antibiotic.

4. The composition of claim 2 wherein the pharmacologically active compound is selected from the group consisting of: tilmicosin, fluoxetine, oxytetracycline, doxycycline, roxithromycin, terbinafine, trimethoprim, neomycin, streptomycin, gentamycin, dibucaine, bupivacaine, benzocaine, tetracaine, acepromazine, itraconazole, tetracyclines, sulfonamides, and aminoglycosides.

5. The composition of claim 4 wherein the pharmacologically active compound is tilmicosin, terbinafine, or fluoxetine.

6. The composition of claim 2 wherein the lipophilic counterion is a C_{10}-C_{22} saturated or un-saturated fatty acid.

7. The composition of claim 2 wherein the lipophilic counterion is an ionized form of a C_{10}-C_{18} saturated or unsaturated fatty acid.

8. The composition of claim 7 wherein the fatty acid selected from the group consisting of one or more of: lauric acid, decanoic acid, myristic acid, oleic acid and linoleic acid.

9. The composition of claim 2 wherein the lipophilic counterion is an ionized form of a polycarboxylic acid.

10. The composition of claim 9 wherein the polycarboxylic acid is selected from the group consisting of one or more of: sebacic acid, polysebacic acid, polyaspartic acid, polyacrylic acid, and polybenzoic acid.

11. The composition of claim 2 wherein the pharmaceutically acceptable water immiscible solvent is selected from the group consisting of one or more of: saw flower oil, safflower oil, castor oil, isopropyl myristate, ethyl lactate, soybean oil, cottonseed oil, corn oil, sunflower oil, arachis oil, olive oil, palm oil, coconut oil, hemp seed oil, canola oil, almond oil, glycerin, a medium or long chain fatty acid, ethyl oleate, linoleic acid, isopropyl palmitate, a glycerol ester, a polyoxyl hydrogenated castor oil, cod liver oil, and a fish derived oil.

12. The composition of claim 11 wherein the pharmaceutically acceptable water immiscible solvent is selected from the group consisting of one or more of: safflower oil, castor oil, linoleic acid, and isopropyl myristate.

13. The composition of claim 2 wherein the pharmacologically active compound is tilmicosin, the lipophilic counterion is linoleic acid, and the pharmaceutically acceptable solvent is selected from the group consisting of one or more of safflower oil, castor oil, and isopropyl myristate.

14. The composition of claim 2 wherein the pharmacologically active compound is fluoxetine, the lipophilic counterion is decanoic acid, and the pharmaceutically acceptable

solvent is selected from the group consisting of one or more of: safflower oil, castor oil, and isopropyl myristate.

15. A method of administering a pharmacologically active compound to a mammal comprising:

administering to the mammal a composition comprising

a salt of the pharmacologically active compound and a lipophilic counterion in a pharmaceutically acceptable water immiscible solvent;

wherein the composition releases the active compound over time when administered to the mammal.

16. The method of claim 15 wherein the composition is administered to the mammal by injection.

17. The method of claim 16 wherein the pharmacologically active compound is an antibiotic.

18. The method of claim 17 wherein the antibiotic is selected from the group consisting of: tilmicosin, terbinafine, trimethoprim, neomycin, streptomycin, gentamycin, tetracyclines, sulfonamides, and aminoglycosides.

19. The method of claim 16 wherein the pharmacologically active compound is selected from the group consisting of: tilmicosin, terbinafine, and fluoxetine.

20. The method of claim 16 wherein the lipophilic counterion is an ionized form of a fatty acid.

21. The method of claim 20 wherein the fatty acid is an ionized form of a C_{10}-C_{22} fatty acid.

22. The method of claim 21 wherein the fatty acid is selected from the group consisting of one or more of: lauric acid, decanoic acid, myristic acid, oleic acid and linoleic acid.

23. The method of claim 16 wherein the lipophilic counterion is an ionized form of sebacic acid.

24. The method of claim 16 wherein the pharmaceutically acceptable water immiscible solvent is selected from the group consisting of one or a combination of: saw flower oil, safflower oil, castor oil, isopropyl myristate, ethyl lactate, soybean oil, cottonseed oil, corn oil, sunflower oil, arachis oil, olive oil, a medium or long chain fatty acid, ethyl oleate, linoleic acid, isopropyl palmitate, a glycerol ester, a polyoxyl hydrogenated castor oil, cod liver oil, a fish derived oil, and coconut oil.

25. The method of claim 24 wherein the pharmaceutically acceptable water immiscible solvent is selected from the group consisting of one or more of: safflower oil, isopropyl myristate, and castor oil.

26. The method of claim 15 wherein the pharmacologically active compound is tilmicosin, the lipophilic counterion is linoleic acid, and the pharmaceutically acceptable solvent is selected from the group consisting of one or more of: safflower oil, castor oil, and isopropyl myristate.

27. The method of claim 15 wherein pharmacologically active compound is fluoxetine, the lipophilic counterion is decanoic acid, and the pharmaceutically acceptable solvent is selected from the group consisting of one or more: of safflower oil, isopropyl myristate, and castor oil.

28. The method of claim 15 wherein the active compound is present in the blood of the mammal at a pharmaceutically effective amount for at least 3 days.

29. The method of claim 15 wherein the active compound is present in the blood of the mammal at a pharmaceutically effective amount for at least 5 days.

30. The method of claim 15 wherein the composition is administered to the mammal orally.

31. A composition for administration of a pharmacologically active compound to a mammal, comprising:

a salt of the pharmacologically active compound with a lipophilic counterion; and

a pharmaceutically acceptable water immiscible solvent;

combined together to form a composition that forms a biphasic mixture when injected into water.

32. The composition of claim 31 wherein the pharmacologically active compound is an antibiotic.

33. The composition of claim 31 wherein the pharmacologically active compound is selected from the group consisting of: tilmicosin, terbinafine, fluoxetine, oxytetracycline, doxycycline, roxithromycin, terbinafine, trimethoprim, neomycin, streptomycin, gentamycin, dibucaine, bupivacaine, benzocaine, tetracaine, acepromazine, itraconazole, tetracyclines, sulfonamides, and aminoglycosides.

34. The composition of claim 33 wherein the pharmacologically active compound is tilmicosin, terbinafine, or fluoxetine.

35. The composition of claim 31 wherein the lipophilic counterion is a C_{10}-C_{22} saturated or un-saturated fatty acid.

36. The composition of claim 31 wherein the lipophilic counterion is a C_{10}-C_{18} saturated or unsaturated fatty acid.

37. The composition of claim 36 wherein the fatty acid selected from the group consisting of one or more of: lauric acid, decanoic acid, myristic acid, oleic acid and linoleic acid.

38. The composition of claim 31 wherein the lipophilic counterion is an ionized form of a polycarboxylic acid.

39. The composition of claim 38 wherein the polycarboxylic acid is selected from the group consisting of one or more of: sebacic acid, polysebacic acid, polyaspartic acid, polyacrylic acid, and polybenzoic acid.

40. The composition of claim 31 wherein the pharmaceutically acceptable water immiscible solvent is selected from the group consisting of one or a combination of: saw flower oil, safflower oil, castor oil, isopropyl myristate, ethyl lactate, soybean oil, cottonseed oil, corn oil, sunflower oil, arachis oil, olive oil, a medium or long chain fatty acid, ethyl oleate, linoleic acid, isopropyl palmitate, a glycerol ester, a polyoxyl hydrogenated castor oil, cod liver oil, a fish derived oil, and coconut oil.

41. The composition of claim 40 wherein the pharmaceutically acceptable water immiscible solvent is selected from the group consisting of: safflower oil, castor oil, linoleic acid, and isopropyl myristate.

42. The composition of claim 31 wherein the pharmacologically active compound is tilmicosin, the lipophilic counterion is linoleic acid, and the pharmaceutically acceptable solvent is selected from the group consisting of one or more of safflower oil, castor oil, and isopropyl myristate.

43. The composition of claim 31 wherein the pharmacologically active compound is fluoxetine, the lipophilic counterion is decanoic acid, and the pharmaceutically acceptable solvent is selected from the group consisting of one or more of: safflower oil, castor oil, and isopropyl myristate.

44. A composition for administration of a pharmacologically active compound to a mammal, comprising

a salt of the pharmacologically active compound with a lipophilic counterion; and

a pharmaceutically acceptable water immiscible solvent, combined together to form a clear solution.